

**REMARKS**

The Official Action mailed October 18, 2004, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicants respectfully submit that this response is being timely filed.

The Applicants note with appreciation the consideration of the Information Disclosure Statements filed on February 18, 2000, March 10, 2003, November 26, 2003, and July 13, 2004.

Claims 1-9, 16 and 18-32 are pending in the present application, of which claims 1, 16, 18 and 30 are independent. Independent claims 1, 16, 18 and 30 have been amended to better recite the features of the present invention. Dependent claims 24-26, which depend directly or indirectly from independent claim 18, have been withdrawn from consideration by the Examiner (Paper No. 9). Accordingly, claims 1-9, 16, 18-23 and 27-32 are currently elected, of which claims 1, 16, 18 and 30 are independent and claim 18 is generic. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 3 of the Official Action rejects claims 1-9, 16, 18-23 and 27-32 as obvious based on the combination of U.S. Patent No. 5,497,366 to Fujisawa and U.S. Patent No. 5,023,845 to Crane et al. The Applicants respectfully traverse the rejection because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some

teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claims 1, 16, 18 and 30 have been amended to recite an optical pickup apparatus which serves to focus the spots (M, E, F, G, H, I and J) of a plurality of light beams on a plurality of tracks of a recording medium (34 or 128) to simultaneously read a plurality of pieces of data recorded on said tracks. Fujisawa and Crane, either alone or in combination, do not teach or suggest at least the above-referenced features of the present invention. Fujisawa appears to use a spot of a single light beam, but Fujisawa does not teach or suggest using the spots of a plurality of light beams to simultaneously read data recorded on a plurality of tracks of a recording medium. As described in detail below, Chase does not cure the deficiencies in Fujisawa.

Also, independent claims 1 and 16 recite objective spot forming means (30) for forming each spot (M, E, F, G, H, I and J) of a plurality of light beams entered via a collimator (28), on each track of a recording medium (34); and a series of adjacent photodetectors (52M, 52E, 52F, 52G, 52H, 52I, and 52J) each provided for each spot (M to J) for receiving reflected light of each spot (M to J), the reflected light having passed through said objective spot forming means (30), said collimator (28), and focus adjusting means (50) in this order. Further, independent claim 18 and 30 recite a spot forming means (126) for forming a plurality of spatially separated spots (M, E, F, G, H, I, and J) of each light beam incoming along the direction of the second axial line (122)

from said light reflection optical element (118, 1120, 1122, 1124, 1126), on each track (142) of a recording medium (128). For the reasons stated in detail below, Fujisawa and Crane, either alone or in combination, do not teach or suggest at least the above-referenced features of the present invention.

The Official Action relies on object lens 51 of Fujisawa (page 2, Paper No. 20041015) for allegedly teaching a spot forming means of the present invention (e.g. Figure 2, 30; or Figure 3, 126). Although Fujisawa may teach that a plurality of light spots are created over a period of time, only one light spot appears to be formed at any one time. Although three lines are shown in each of Figures 4 and 14, these lines appear to represent the extent of the light from the laser source 44. The use of the word "beams" in Fujisawa does not mean a plurality of beams being spatially separated but a plurality of beams being successively created with the passage of time. Contrast Figures 4 and 14 of Fujisawa with Figures 2 and 3 of the present specification. The beams in Figures 4 and 14 of Fujisawa converge on a single point on optical disc 1; whereas, multiple beams in Figures 2 and 3 of the present specification converge on multiple spots on the recording medium. Therefore, object lens 51 of Fujisawa does not form each spot of a plurality of light beams entered via a collimator, on each track of a recording medium; and object lens 51 of Fujisawa does not form a plurality of spatially separated spots of each light beam incoming along a direction of a second axial line from a light reflection optical element on each track of a recording medium.

The Official Action relies on photo detectors 98 and 99 of Fujisawa (page 2, Paper No. 20041015) for allegedly teaching a series of adjacent photodetectors of the present invention (e.g. Figure 2; 52M, 52E, 52F, 52G, 52H, 52I, and 52J). However, photo detectors 98 and 99 of Fujisawa do not even operate in the same optical path. Figures 11 and 14 show that photo detector 98 is part of "a second optical path of reflected laser beams traveling through optical disc 1, object lens 51, reflection mirror 84, collimator lens 83, beam splitter 82, multi-lens 85, and photo detector 98 in order recited" (column 15, lines 58-62). Whereas, photo detector 99 is part of "a third optical

path of incident laser beams traveling through the emitting surface of semiconductor laser 80, optical path recessed portion 90, grating 81, optical path recessed portion 95, beam splitter 82 and photo detector 99 in order recited" (column 15, lines 62-66). The optical paths of respective lights propagated from the optical source to the photo detectors 98 and 99 are different from each other, and the photo detector 99 does not receive the reflected light from the spot. Therefore, while the optical pickup device of Fujisawa is provided with two photo detectors, the photo detectors 98 and 99 of Fujisawa do not constitute a series of adjacent photodetectors, much less a series of adjacent photodetectors each provided for each spot of a plurality of light beams on a plurality of tracks of a recording medium.

Further, the photo detectors 98 and 99 of Fujisawa do not receive reflected light of each spot of a plurality of light beams on a plurality of tracks of a recording medium, the reflected light having passed through an objective spot forming means, a collimator, and a focus adjusting means in this order. Specifically, the Official Action relies on object lens 51 of Fujisawa to allegedly teach the spot forming means of the present invention (page 2, Paper No. 20041015), on collimator lens 83 of Fujisawa to allegedly teach the collimator of the present invention (Id.), and is silent as to what in Fujisawa allegedly teaches the focus adjusting means of the present invention. The Official Action peripherally discusses "a focus adjusting means support member (fig. 7, unit 63). Therefore, presumably, the focus adjusting means in Fujisawa is the structure surrounding object lens 51. Lens 51, lens 83 and the structure surrounding object lens 51 in Fujisawa simply do not function together in the manner described in the independent claims of the present invention. In order for Fujisawa to teach or suggest the features of the present invention, the following statement would have to be true: the photo detectors 98 and 99 of Fujisawa receive reflected light of each spot of a plurality of light beams on a plurality of tracks of a recording medium, the reflected light having passed through an objective spot forming means (presumably object lens 51), a collimator (presumably 83), and a focus adjusting means (presumably the structure

surrounding object lens 51) in this order. This statement does not make sense and is false. Not only does Fujisawa not teach or suggest anything to do with reflected light of each spot of a plurality of light beams on a plurality of tracks of a recording medium, it is entirely unclear how reflected light passes through the structure surrounding object lens 51 of Fujisawa, shown in Figure 9 and described in column 9, line 45+. Since Fujisawa does not appear to teach or suggest reflected light having passed through an objective spot forming means, a collimator, and a focus adjusting means in this order, the photo detectors 98 and 99 of Fujisawa cannot receive reflected light of each spot of a plurality of light beams on a plurality of tracks of a recording medium, the reflected light having passed through an objective spot forming means, a collimator, and a focus adjusting means in this order.

Crane does not cure the above-referenced deficiencies in Fujisawa. Crane is relied upon to allegedly teach "plural adjacent photodetectors" (page 3, Paper No. 20041015) and is not relied upon to teach or suggest anything related to a spot forming means. It appears that Crane is directed to an embedded fiber optic beam displacement sensor which includes photodetector grid array 8, which is illustrated in Figure 3A, and is described as "having a plurality of segments, each segment of said array positioned to receive a different portion of a light beam emanating from a second end of said optical fiber, said array adapted to produce electrical signals identifiable to the amount of light reaching each said segment" (claim 1). As with Fujisawa, the array of Crane is adapted to receive a single light beam, not a plurality of spots from a plurality of light beams on a plurality of tracks of a recording medium.

Even if one were able to identify sufficient motivation in Fujisawa and/or Crane to justify replacing one or both of photo detectors 98 and 99 of Fujisawa with the photodetector grid array 8 of Crane, it is not clear that the array 8 of Crane would work with the Fujisawa device, and the combined Fujisawa/Crane device still would not constitute a series of adjacent photodetectors each provided for each spot of a plurality of light beams on a plurality of tracks of a recording medium. Also, the combined

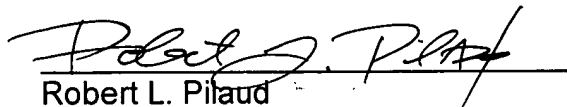
Fujisawa/Crane photodetector still would not receive reflected light of each spot of a plurality of light beams on a plurality of tracks of a recording medium, the reflected light having passed through an objective spot forming means, a collimator, and a focus adjusting means in this order.

The combined Fujisawa/Crane device also does not teach or suggest a spot forming means for forming each spot of a plurality of light beams entered via a collimator, on each track of a recording medium or a spot forming means for forming a plurality of spatially separated spots of each light beam incoming along a direction of a second axial line from a light reflection optical element on each track of a recording medium.

Since Fujisawa and Crane do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

  
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